

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application. An identifier indicating the status of each claim is provided.

Listing of Claims

1. (Currently Amended) ~~A digital still camera~~ An imagining apparatus comprising:
 - a first converting circuit that receives image data of an image subjected to an automatic white balance correction and converts the image data according to one of a plurality of scene-reference color space formats;
 - a temporary memory for storing the image data for which tone correction is to be performed in the one of the plurality of scene-reference color space formats;
 - ~~a removable recording medium storing both the converted image data and the unconverted image data;~~ and
 - a tone correction circuit,wherein the plurality of scene-reference color space formats comprise a first scene-reference color space format and a second scene-reference color space format having linear image data and an extended color space of the first scene-reference color space format,
wherein a plurality of luminance values corresponding to a plurality of cumulative histogram values with equal intervals are extracted from the image data in a YscYCC format,
wherein the image data is categorized into a plurality of categories according to a first extracted luminance value and a luminance range determined by a second extracted luminance value and a third extracted luminance value,

wherein the category information is used for selecting tone correction parameters,
and

wherein the image data is read out from the temporary memory or the a recording medium to perform the tone correction, and the image data resulting from the tone correction is recorded in the recording medium.

2. (Currently Amended) The ~~digital still camera~~ imaging apparatus according to claim 1, further comprising:

a white-balance fine tuning circuit for fine-tuning a white balance of the image data,

wherein the image data read out from the temporary memory or the recording medium is supplied to the white-balance fine tuning circuit to fine-tune the white balance, and the image data resulting from the fine tuning is recorded in the recording medium.

3. (Currently Amended) The ~~digital still camera~~ imaging apparatus according to claim 2, further comprising:

a display,

wherein the image data output from the white-balance fine tuning circuit is supplied to the display to display the result of the fine tuning in the white-balance fine tuning circuit in the display.

4. (Currently Amended) The ~~digital still camera~~ imaging apparatus according to claim 1,

wherein the tone correction circuit has a plurality of selectable tone correction characteristics and corrects the readout image data with respect to one of the tone correction characteristics.

5. (Currently Amended) The ~~digital still camera~~ imaging apparatus according to claim 4, further comprising:

a display; and

an operation unit of a GUI for selecting one of the tone correction characteristics, wherein the operation state in the operation unit is displayed in the display.

6. (Currently Amended) The ~~digital still camera~~ imaging apparatus according to claim 4,

wherein a statistical analysis is performed for a luminance component of the readout image data, and

wherein one of the tone correction characteristics is selected according to the analysis result to perform the tone correction.

7. (Currently Amended) The ~~digital still camera~~ imaging apparatus according to claim 4,

wherein the ~~digital still camera~~ imaging apparatus has a characteristic in which an image output to a display or a printer has high average luminance, high contrast, and high

saturation, as one of the tone correction characteristics.

8. (Currently Amended) The ~~digital still camera~~ imaging apparatus according to claim 4,

wherein the ~~digital still camera~~ imaging apparatus has a characteristic in which an image output to a display or a printer has high average luminance and high contrast, as one of the tone correction characteristics.

9. (Currently Amended) The ~~digital still camera~~ imaging apparatus according to claim 4,

wherein the ~~digital still camera~~ imaging apparatus has a characteristic in which the tone of a shadow or a highlight of the image is preferentially corrected, as one of the tone correction characteristics.

10. (Currently Amended) The ~~digital still camera~~ imaging apparatus according to claim 1,

wherein a combination of an S-shaped function and an inverted S-shaped function is used as a tone correction characteristic.

11. (Currently Amended) An image correction method comprising the steps of:
receiving image data of an image subjected to an automatic white balance correction;

categorizing the image data into one of a plurality of categories with respect to a magnitude of brightness and a range of brightness;

converting image data according to one of a plurality of scene-reference color space formats;

storing both the converted image data and the unconverted image data of the image;

performing the tone correction for the stored image data stored in the temporary memory or the recording medium; and

recording the image data resulting from the tone correction in the recording medium;

wherein a plurality of luminance values corresponding to a plurality of cumulative histogram values with equal intervals are extracted from the image data in a YscYCC format,

wherein the image data is categorized into a plurality of categories according to a first extracted luminance value and a luminance range determined by a second extracted luminance value and a third extracted luminance value,

wherein the category information is used for selecting tone correction parameters, and

wherein the plurality of scene-reference color space formats comprise a first scene-reference color space format and a second scene-reference color space format having linear image data and an extended color space of the first scene-reference color space format.

12. (Currently Amended) The image correction method according to claim 11, further comprising the steps of:

fine-tuning a white balance of the image data read out from the temporary memory; and

recording the image data resulting from the fine tuning ~~in the recording medium.~~

13. (Original) The image correction method according to claim 11, wherein a plurality of tone correction characteristics are provided, and wherein the readout image data is corrected with respect to one of the tone correction characteristics.

14. (Previously Presented) The image correction method according to claim 13, wherein one of the tone correction characteristics is selected by operating a GUI, wherein a statistical analysis is performed for a luminance component of the readout image data, and

wherein one of the tone correction characteristics is selected according to the analysis result to perform the tone correction.

15. (Original) The image correction method according to claim 13, wherein a statistical analysis is performed for a luminance component of the readout image data, and

wherein one of the tone correction characteristics is selected according to the analysis result to perform the tone correction.

16. (Original) The image correction method according to claim 13,
wherein the image correction method has a characteristic in which an image
output to a display or a printer has high average luminance, high contrast, and high saturation, as
one of the tone correction characteristics.

17. (Original) The image correction method according to claim 13,
wherein the image correction method has a characteristic in which an image
output to a display or a printer has high average luminance and high contrast, as one of the tone
correction characteristics.

18. (Original) The image correction method according to claim 13,
wherein the image correction method has a characteristic in which the tone of a
shadow or a highlight of the image is preferentially corrected, as one of the tone correction
characteristics.

19. (Original) The image correction method according to claim 11,
wherein a combination of an S-shaped function and an inverted S-shaped function
is used as a tone correction characteristic.